IN THE CLAIMS

1-46. (Cancelled).

47. (Previously added) Organometallic complex having the formula (I):

 $[(Z(L)_3)_pM]A_q$

(I)

wherein Z is a carbon atom or R1 - B fragment

p is 1, 2 or 3

q is 3-p and

A is a counterion

 R^1 is: (i) hydrogen, aryl or aralkyl each optionally substituted with from one to five halogen or C_1 to C_6 alkyl groups; or (ii) C_1 to C_6 alkyl, C_1 to C_6 alkenyl or C_1 to C_6 alkynyl each optionally substituted with one or more halogen atoms

each L is covalently bound to Z and is independently selected from a group of the formula (II) or (III)

in which R2, R3 and R4 are independently selected from:

- (i) halogen, cyano, nitro, sulphono, amino. C₁ to C₆ alkylamino, C₁ to C₆ alkylamido, carboxyl, C₁ to C₆ alkyloxycarbonyl, hydroxy, C₁ to C₆ alkoxy, C₁ to C₆ alkylcarbonyloxy, C₁ to C₆ alkylcarbonyl C₁ to C₆ haloalkoxy and hydrogen;
- (ii) aryl or aralkyl each optionally substituted on the aryl ring or, for aralkyl, on the alkylene chain with from one or more of the groups mentioned under (i) above;—and—
- (iii) C₁ to C₆ alkyl, C₁ to C₆ alkenyl or C₁ to C₆ alkenyl or C₁ to C₆ alkynyl each optionally substituted with one or more of the groups mentioned under (i) and (ii) above;

 R^4 and or R^2 is $(CX_2)_nX$ wherein n is 0 or a positive integer from 1 to 6 and X is halogen; or R^4 is orthodihalogenated or orthodiperhalomethylated aryl, optionally further substituted on the aryl ring; or

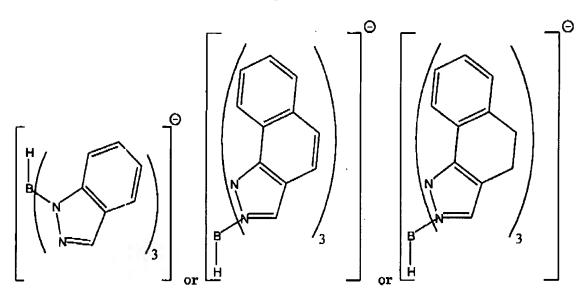
R² and R³ or R³ and R⁴ are linked so as to form a fused aromatic or non-aromatic ring system with the pyrazolyl ring of L; and

M is a trivalent lanthanide metal ion.

48. (Previously added) Complex as claimed in claim 47, wherein M is Tb, Ce, Eu, Er, Gd, Tm, Sm or Nd.



- 49. (Previously added) Complex as claimed in claim 47, wherein R⁴ is trifluoromethyl.
- 50. (Previously added) Complex as claimed in claim 47, wherein R³ is hydrogen and R² is trifluoromethyl.
 - 51. (Previously added) Complex as claimed in claim 47, wherein Z is H-B.
 - 52. (Previously added) Complex as claimed in claim 47, wherein ZL₃ is



53. (Previously added) Complex as claimed in claim 47, wherein A is CF₃SO₃, halide, nitrate or perchlorate.

54. (New) Complex as claimed in claim 47, wherein:

Z is H-B;

Lis

M is Tb;

A is CF₈SO₃;

X is halogen;

R1 is H;

R2 is CH3;

R3 is H; and

R4 is CH_{3.}

55. (New) Complex as claimed in claim 48, wherein:

Z is H-B;

L is

M is Tb;

A is CF₃SO₃;

X is halogen;

R1 is H;

R2 is CH3;

R3 is H; and

R4 is CH_{3.}

56. (New) Complex as claimed in claim 51, wherein:

L is

M is Tb;

A is CF3SO3;

X is halogen;

R1 is H;

R2 is CH3;

R3 is H; and

R4 is CH_{3.}

57. (New) Complex as claimed in claim 53, wherein:

Z is H-B;

Ecrita

M is Tb;

A is CF₃SO₃;

X is halogen;

R1 is H;

R2 is CH3;

R3 is H; and

R4 is CH_{3.}